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for

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) >The National Training Center (NTC) provides realistic training conditions for heavy battalion task forces. In addition to this primary mission, however, NTC also serves a research purpose. For this reason, the Army Research Institute (ARI) has undertaken a research program in support of the Combined Arms Training Activity, NTC's parent organization. The program supports the Training Activity's mission of developing lessons learned from past experience. The present research note presents a framework for issue identification which (OVER)		

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ARI RESEARCH NOTE 87-0620. Abstract (continued)

is specifically tailored to the needs of the NTC, i.e., the issues identified are able to be researched at the NTC. The utility of this framework is three fold: it demonstrates and organizes the wide range of issues suitable for investigation at the NTC, it provides input on selection of issues and setting of priorities which can be of use to policy makers, it permits the formulation and categorization of new issues.

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NATIONAL TRAINING CENTER RESEARCH ISSUES

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INTRODUCTION

The National Training Center (NTC) at Fort Irwin, California serves the Army in two primary capacities. The first and primary purpose is as a realistic training facility for heavy battalion task forces. In this regard, Mechanized Infantry and Armor heavy task forces are pitted against an OPFOR employing soviet tactics and doctrine in a series of mission scenarios for a period of approximately two weeks. These engagement simulation exercises employ MILES and are monitored using sophisticated range control and data collection equipment. As a result, an enormous amount of performance data is collected and available both for immediate and later analysis.

It is the later analysis of NTC data that bears on the NTC's second purpose, namely to provide a source of information for research on training, doctrine, equipment, and organization. The task of conducting research on the NTC information has been undertaken by the Army Research Institute as a primary mission for its Presidio of Monterey Field Unit.

In support of the accomplishment of that mission, ARI has awarded the BDM Corporation a three year contract to assist in the utilization of the NTC data for the Army's benefit. An initial task undertaken by BDM was a demonstration of the utility of NTC data. Two different lines of activity were pursued for this demonstration. The first was to use NTC data to produce an NTC Lessons Learned report as an example of the training and doctrinal implications that could be drawn from the NTC. The second effort was to design and develop a framework that could be used to identify issues suitable for research with NTC so that Army policy makers could prioritize and select specific topics for immediate attention. This document contains the results of this later developmental effort.

THE FRAMEWORK

The NTC provides feedback to the participating task force units in two primary ways: After Action Reviews and Take Home Packages. Both of these feedback devices share the operating systems as an organizing rubric. The seven operating systems are: Maneuver, Fire Support, Intelligence, Air Defense, Mobility/Counter mobility, Combat Service Support, and Command and Control. In addition, an eighth operating system, Nuclear/Biological/Chemical (NBC), has been added at NTC because of its performance importance. These eight systems provide a higher order conceptual structure for the organization of performance and tasks at the NTC. It was felt that any framework for issue identification should best parallel this structure so that it could capitalize on the way data is collected and analyzed at the NTC as well as be substantively similar to NTC feedback. Therefore, the issue framework that was selected was the eight operating systems and their first order subelements.

The remainder of this report presents the issue framework and a preliminary list of issues that could be generated and investigated with NTC data for each system. The organization of the subsequent sections is by operating system. For each system, the first order subelements are listed and they are followed by sample issues for each subelement.

It should be kept in mind that the issues listed here are not considered exhaustive or even comprehensive but rather are meant as illustrative of the types of issues available for research at the NTC.

I MANEUVER

A. See the Battle Field

1. Mission
2. Enemy
3. Terrain
4. Troops/Time

B. Fight Combined Arms

1. Armor
2. Infantry
3. TOWS
4. Attack Helicopter
5. Scouts

C. Concentrate Combat Power - Offensive Actions

1. Mutual Support/ Overwatch
2. Movement Techniques
3. Actions on Contact
4. Direct Fires
5. Indirect Fires
6. Assault

D. Use Defenders Advantage - Defensive Actions

1. Terrain, Position Selection/Preparation
2. Routes of Withdrawal
3. Engage at Maximum Range
4. Counter Attack
5. Alternate and Supplementary Positions

A. See the Battle Field

1. Mission
2. Enemy
3. Terrain
4. Troops/Time

ISSUES:

o Task Force Commanders have difficulty knowing the location and actions of both friendly and enemy forces.

o Where should Command Groups be positioned on the battle field?

o Are current battalion communications equipment packages capable of surviving on the battlefield?

o Are communications equipment packages adequately survivable and mobile to meet battalion requirements?

o Is the Scout Platoon organized and equipped to properly perform assigned reconnaissance and surveillance missions?

B. Fight Combined Arms

1. Armor
2. Infantry
3. TOWS
4. Attack Helicopter
5. Scouts

ISSUES:

o How can the task force capitalize on the speed and mobility of the M1/M2 and counter the slower speed and mobility of the combat support elements?

o What problems are presented by the J-series TO&E, particularly in the area of dismounted operations? How can these issues be resolved?

o How heavy is the individual combat load? How should it be modified?

o Is the use of a reserve force at battalion level a viable option for light forces in a mid to high intensity defense? What employment alternatives, techniques, etc. should be considered?

o Determine the contribution of Infantry AT weapons systems in the close-in anti-armor battle.

o Determine the practice effectiveness of tank and tow fire on the battlefield. Determine and describe the critical parameters of effective crew performance in battle-like conditions.

o Determine the effectiveness of task force counter reconnaissance performances at the NTC.

o Ammunition expenditures at the NTC for Offensive and Defensive Live Fire Missions fall far below levels outlined in FM 101-10-1. Determine the cause and impact of this difference.

C. Concentrate Combat Power - Offensive Actions

1. Mutual Support/ Overwatch
2. Movement Techniques
3. Actions on Contact
4. Direct Fires
5. Indirect Fires
6. Assault

ISSUES:

o Are tactics, techniques and procedures outlined in doctrine adequate in explaining how to plan, prepare, and conduct offensive operations under limited visibility conditions?

o Consolidation and reorganization on the objective presents numerous problems. Are procedures outlined in current doctrine adequate? What successful techniques have been employed to accomplish the immediate establishment of an objective? Are these successful techniques being incorporated into doctrine?

o Pre-attack reconnaissance is vital to the success of an attack. How is this reconnaissance conducted by the various maneuver elements, and what effect does task organization have on the ability of the company teams to conduct reconnaissance? How can the company commander organize to conduct reconnaissance, mark routes, and conduct rehearsals? Are procedures or techniques outlined in current doctrine adequate?

o The speed of the M1, M2, M3/M551 (Airborne specific) creates the potential for formations to break up and elements to be piecemealed, especially during offensive operations. How can this tendency be minimized while still capitalizing on the speed and mobility afforded by the vehicle?

o Does current doctrine adequately show units how to attack Soviet strongpoint-type defense?

o What are the causes of direct-fire fratricide?

o How successful are Task Forces in concentrating combat power in the Deliberate Attack?

o How effective is the overwatch/supporting attack element?

o In the offense, mass is achieved by isolating the defender using the proper force ratio to gain a foothold, however small, and then defeating the enemy in detail. Too often

commanders designate a hill top or ridge line as an objective without knowledge or consideration as to how the enemy has deployed his forces on it. Lesson: ensure the intelligence paints a picture of how the enemy plans to defend, how his forces are disposed, and where his obstacles and engagements areas are.

- o Battalion Task Forces demonstrate overall weakness in concentrating available combat power against the enemy in offense operations. Piecemeal attacks are common. Determine through instrumentation the degree to which company teams support or do not support other company teams in the offense.

- o Movement techniques at Battalion and Company level are not consistently performed consistent with the enemy situation and the terrain. Determine the degree to which the battalions and company teams practice doctrinal movement techniques.

- o Momentum slows considerably when units gain contact. Through instrumentation determine the degree to which units do or do not execute proper actions when making contact with the enemy.

- o The build-up of direct fires in the attack is insufficient to destroy or drive the enemy from the objective. Through instrumentation determine the extent to which maximum and available direct fires are applied against a defending enemy.

- o Indirect fire planning to include the use of smoke is not consistently accomplished to adequately suppress and isolate the objective. Determine the adequacy of indirect fire planning in support of offensive operations.

- o The battalions and company teams have not demonstrated the operational techniques to accomplish a violent assault of the defending enemy. Determine through instrumentation the degree to which units do not properly assault.

- o Make recommendations to assist in correcting tactical deficiencies.

D. Use Defenders Advantage - Defensive Actions

1. Terrain, Position Selection/Preparation
2. Routes of Withdrawal
3. Engage at Maximum Range
4. Counter Attack
5. Alternate and Supplementary Positions

ISSUES:

o During defensive operations, the areas that dismounted infantry must cover differ significantly from those covered by the Bradley fighting vehicles. Are the procedures described in current doctrine concerning disengagement of the carriers and dismounted elements adequate? What techniques were most successful?

o Were reverse slope positions selected for dismounted infantry? If so, how were other battalion assets synchronized?

o Frequently, units conduct static defenses at the NTC.

- What techniques enhance maneuver and initiative during defensive operations?

- When counterattack missions were assigned, what techniques were used to enhance their execution?

o Determine circumstances that call for the use of depth in defending against an enemy. Determine how well the commanders organize in depth against the MRR.

o Determine the degree to which the Task Forces employ counterattacks in the defense.

o Battalions do not consistently develop defense schemes using the six step analysis process. Determine the adequacy of position selection to meet the enemy threat based upon the Battalion s-2 IPB.

o Battalions do not use available organizational supporting fire power against the enemy attacker. Determine the degree to which all available organics supporting weapons systems are brought to bear against the enemy.

o Fire control and distribution is a major training deficiency. Measure the adequacy of tank & tow fire control and distribution.

o Determine the contribution of tow weapons to the

anti-armor fight.

- o Determine the contribution of Viper & Dragon to the anti-armor fight.

- o Counter attack planning and execution at TF level is deficient. Measure the degree to which counterattacks are planned and executed.

- o Units have extreme difficulty in fighting a maneuver defense. Determine the demonstrated ability of units to execute battle-field tactical movement in accordance with maneuver plans and orders.

II FIRE SUPPORT

A. Artillery

1. Planning
2. Execution

B. Mortars

1. Planning
2. Execution

C. Close Air Support (CAS)

1. Planning
2. Execution

A. Artillery

1. Planning
2. Execution

ISSUES:

o Are there sufficient how-to procedures and guidelines in doctrinal manuals for the FSO to accomplish his job? If not, what is missing?

o What are the missing links in poor execution of fires? How can they be fixed?

o Where is the best position for the TF ALO (GFAC) to ride to influence the battle?

o How can the FIST/FOs improve their techniques of locating the fire plan on the ground?

o How can the FSO best synchronize fires?

o Are the doctrinal net structures (FM 6-20, FM 71-2J) for fire support adequate to support the demands that are placed on it?

o How can home station training be improved to ensure proficiency of all phases of fire support?

o Should the POIs/training exercises at TRADOC schools be changed to enhance fire support? If so, what areas?

o With light force units, what problems do the communication distances cause? How can they be solved?

o How can the COLT concept be effectively utilized on the battlefield?

o What is the most effective fire support and planning technique at the NTC, centralized or decentralized?

o During the indirect fire evacuation phase of an operation there is great difficulty in placing indirect fires on a moving enemy. Determine the degree to which artillery is successfully fired upon the attacking enemy.

o Unit commanders seldom fire-in and adjust Final Protective Fires (FPF's). Determine the extent to which FPF's are adjusted.

o The Artillery Fire Plan may or may not be consistent with the scheme of maneuver and the S-2 IPB. Determine whether the fire plan is consistent with the S-2's templating.

o Smoke planning and execution is largely unsatisfactory. Determine the degree to which smoke is planned and executed and the relationship of the degree of battlefield obscuration to the degree of friendly casualties.

B. Mortars

1. Planning
2. Execution

- o How can mortars be effectively utilized in battle?

- o Mortars have been perceived as a weak link of the NTC in fire support. What are the primary sources of this weakness?

- o What is the role of the FIST in the effective use of mortars at the NTC?

- o What is the best procedure for including the mortars into the overall firing control scheme?

- o What effect does the positioning of mortars have upon their utilization and ultimate effectiveness.

- o Mortars are unsatisfactorily employed in the battle. Measure the contributions of mortars to offense and defense operations during planning and execution of indirect fires.

C. Close Air Support (CAS)

1. Planning
2. Execution

III INTELLIGENCE

A. Collect Combat Information

1. Identify Requirements
2. Select Priorities
3. Support Subordinate Requests
4. Tasking

B. Process Combat Information

1. Communications
2. Spot Reports
3. Supervise
4. Record

C. Disseminate and Use Intelligence

1. Evaluate - Interpret
2. Timeliness
3. Effect
4. Report

A. Collect Combat Information

1. Identify Requirements
2. Select Priorities
3. Support Subordinate Requests
4. Tasking

ISSUES:

o S-2's demonstrate great difficulty in using all available sources to acquire information. Scouts are generally tasked to be the primary intelligence collection asset. Determine the degree to which reconnaissance patrols are or are not exploited to acquire information.

o GSR's contribute to varying degrees in support of Defense Operations. Using instrumentation to determine the adequacy of radar coverage of the battlefield and the information acquired by the GSR's.

o The S-2 has difficulty in developing a full IPB for the defense. Determine the extent to which the IPB is developed. Determine what is not accomplished. Determine how the IPB could be automated to speed the IPB development process.

o How did the S-2 translate the Priority Intelligence Requirements (PIR) and Other Intelligence Requirements (OIR) into a reconnaissance and surveillance plan? FM 30-5, chapter 4, discusses the information collection effort, and specifies that the S-2 is responsible for the plan, as well as saying that all assets available must be utilized, but does not give examples of "how to". What successful techniques did the S-2 use to integrate all available assets into a comprehensive R & S plan?

B. Process Combat Information

1. Communications
2. Spot Reports
3. Supervise
4. Record

ISSUES:

- o Spot reports are generally submitted in an incomplete format. Using instrumentation, determine the sufficiency of SPOTREPS.

- o Is doctrinal literature for the S-2 adequate in explaining "how to" coordinate and integrate information collection assets and conduct adequate IPB?

C. Disseminate and Use Intelligence

1. Evaluate - Interpret
2. Timeliness
3. Effect
4. Report

ISSUES:

o Evaluation of battlefield information is a weakness. Determine from the S-2's IPB whether the evaluated information correlates to the actual enemy situation, capability and actions.

o What criteria were used at brigade to ensure that only essential information was sent down to the task force S-2?

IV AIR DEFENSE

A. Planning

B. Coordination

C. Execution

1. General Evaluation
2. Air Defense Officer
3. Passive Air Defensive
4. Active Air Defense
5. Vulcan
6. Early Warning
7. Support By Task Force

A. Planning

ISSUES:

- o Determine the effectiveness of maneuver force air Defense early warning doctrine as employed during rotation 85-8, with an emphasis on identifying techniques that were especially effective.

- o What technique or procedure was used to pass early warning information?

- o Who was responsible for early warning in the task force?

- o What communications equipment was used by the task force to broadcast early warning?

- o Battalion TF Air Defense plans are generally inadequate. Determine the degree to which Air Defense plans are or are not satisfactory. By comparing the formal Air Defense Plan to doctrinal requirements.

B. Coordination

C. Execution

1. General Evaluation
2. Air Defense Officer
3. Passive Air Defensive
4. Active Air Defense
5. Vulcan
6. Early Warning
7. Support By Task Force

ISSUES:

o Determine the ability of the Vulcan air defense system to keep pace with and provide coverage to the M1/M2 equipped task force.

o Were Vulcans able to keep pace with the M1/M2 forces during offensive missions?

o Were Vulcans able to keep pace with M1/M2 forces during defensive missions?

o What significant problems developed for ADA forces as a result of the increased speed capability of the M1/M2 forces?

o Describe the most workable relationships between ADA units and the task force. Explain what must happen to ensure synchronization and support between these elements. How should CSS be provided to ADA units?

o To determine the effectiveness of the piggy-back concept as an interim and/or long range doctrinal solution to the issue of stinger crew survivability on the heavy forces battlefield and to specifically identify the strengths and limitations of the concept in M1/M2 equipped forces.

o What tactics, techniques or procedures were used which enabled stinger crews to be deployed in armored vehicles?

o Which armored vehicles were stinger crews placed in?

o How were the stinger crews employed during offensive missions?

o How were the stinger crews employed during defensive missions?

o How did the stinger crews receive air defense early warning information?

o Overlapping and mutual support air defense coverage is

generally lacking because of poor planning and execution. Using instrumentation and task organization determine the degree to which ADA principles are being practiced.

V MOBILITY/COUNTERMOBILITY

A. Mobility

1. Planning
2. Breaching

B. Countermobility

1. Planning
2. Execution
3. Obstacle Construction
4. Use of Obstacles
5. Survivability of:
 - o Individuals
 - o Vehicles

A. Mobility

1. Planning
2. Breaching

ISSUES:

o Do maneuver unit commanders understand the need to augment engineer support? Are sufficient guidance, tactics, techniques, and procedures available?

o Does the maneuver commander have enough information in lane control/closure and breaching techniques?

o Battalion TF's do not use Engineers well in the offense, what are the planning and execution problems which produce this condition?

o Engineer elements are often killed while attempting to breach enemy obstacles. What are the causes and conditions producing this situation.

o Engineers have the potential to bring victory, what must be trained and practiced in the area of assault and deliberate breaching of obstacles to actualize this?

o What are the division level coordination in training responsibilities necessary to ensure that task force engineers, staff officers, and trained to perform this technical status?

o In the desert the priority mission for the engineer's bulldozer should be survivability (good fighting positions) because tank ditches and other obstacles are more easily bypassed than in wooded or rural areas. Confirm this assumption using the available instrumentation records.

o Units have difficulty in conducting hasty breach operations. Determine the degree to which units are able to successfully breach obstacles, and through instrumentation, some of the major reasons for unsuccessful breaching.

B. Countermobility

1. Planning
2. Execution
3. Obstacle Construction
4. Use of Obstacles
5. Survivability of:
 - o Individuals
 - o Vehicles

ISSUES:

o Does doctrine/procedures provide sufficient guidance for the Combat Engineer to properly execute his support mission?

o Is there sufficient guidance for both the maneuver commander and the engineer to establish fighting position locations?

o What minefield employment equipment and techniques are effective in obstacle construction?

o Can the engineers support the lines of communication requirements with their TO&E?

o Are Class IV requirements understood and supportable in terms of quantity, transportation, and positioning?

o Does FC 5-100-1, "The Brigade/Task Force Engineer", provide sufficient and adequate guidance to engineers at those levels?

o Class IV should be packaged in the BSA in 100 meter increments for standard barriers, palletized and banded. The 100 meter package should include items such as concertina, barbed wire, stakes, mines, etc.

o Insufficient obstacles are used in the defense to reinforce terrain to stop the enemy. Through instrumentation determine the degree to which TF obstacles slow, divert, or stop the enemy attacker.

VI COMBAT SERVICE SUPPORT

A. General

B. Vehicle Recovery

C. Maintenance

D. Supply

1. Class I - Food
2. Class III - Fuel & Lubricants
3. Class IV - Barrier Materials
4. Class V - Ammunition
5. Class VII -
6. Class VIII - Parts etc.
7. Class IX -

E. Administration

F. Medical

A. General

B. Vehicle Recovery

ISSUES:

- o During offensive operations recovery of damaged vehicles is more expedient if the BMO follows closely behind the lead elements of the task force in a M113 followed by M88s.

- o HETs should be located at the UMCP to transport damaged vehicles that need to go to the BSA. M88s are too valuable of a battlefield recovery asset to be used for towing combat vehicles to the BSA.

C. Maintenance

ISSUES:

- o Repair of damaged combat vehicles is inhibited when recovery of vehicles to the Unit Maintenance Collection Point (UMCP) does not occur efficiently. Using instrumentation, determine the degree in which battlefield damaged vehicles move to, or are evacuated to the UMCP.

D. Supply

1. Class I - Food
2. Class III - Fuel & Lubricants
3. Class IV - Barrier Materials
4. Class V - Ammunition
5. Class VII -
6. Class VIII - Parts etc.
7. Class IX -

ISSUES:

o Most task forces have difficulty conducting emergency resupply when and where required.

o What techniques/procedures enhance the ability to conduct emergency resupply?

o Is the task force equipped to conduct emergency resupply (communications, transportation, etc)? If not, what outside agencies are required to augment the task force and are they capable of doing so?

o What was the task force's plan for emergency resupply?

o Was the execution of the plan for emergency resupply effective? IF not, what doctrine, equipment, training or organizational changes are required?

o What techniques were used to resupply the mortars and attachments?

o Doctrine does not provide sufficient guidance for the task force to conduct reconstitution (to include replacement of NBC suits, filters and used NBC test supplies) and decontamination after a NTC attack.

o How was task force reconstitution accomplished?

o What was the task force's plan for reconstitution after a NBC attack?

o Was the task force able to reconstitute quickly and efficiently? If not, what doctrine, equipment, training or organizational changes are required?

o How was task force decontamination accomplished after a NBC attack?

o How did the task force plan for decontamination after a

NBC attack?

o Was the execution of the task force's plan for decontamination effective? If not, what doctrine, equipment, training or organizational changes are required?

E. Administration

F. Medical

ISSUES:

o In the defense, the company team medics should be as aware as the commander of where the platoons are located. They should also have reconned evacuation routes to the battalion aid station.

o Task forces are not equipped to handle mass casualty situations in a manner that does not cause additional combat losses.

- What techniques/procedures enhanced the ability to transport and treat mass casualties?
- How did the task force plan to treat and transport mass casualties? Did the plan require non-organic support (if so, explain)?
- Was the execution of the plan effective? If not, what doctrine, equipment, training or organizational changes are required?

VII COMMAND AND CONTROL

A. General

1. Recieve Mission
2. Issue Warning Order
3. Make Tentative Plan
4. Initiate Movement
5. Reconntitor
6. Complete Plan
7. Issue Order
8. Supervise

B. Command Group

1. Composition
2. Location
3. Control

C. Command Posts

1. Tactical Operations Center - Main
2. Tactical Operations Center - Alternate (Jump)

D. Communications and Electronics

1. Responsibilities
2. FM Nets
3. Sound/Visual/Wire Communications
4. Communications Security

E. Operations Security

1. Planning
2. Counter Surveillance
3. Counter Measures
4. Deception

A. General

1. Recieve Mission
2. Issue Warning Order
3. Make Tentative Plan
4. Initiate Movement
5. Reconitor
6. Complete Plan
7. Issue Order
8. Supervise

ISSUES:

o Command and control execution doctrine is lacking.
Command and control duing NTC battles has proven difficult.

o Hasty planning (the NTC norm) has proven a weakness at the NTC.

o Are established doctrinal relationships adequate for heavy/light force operations?

o Land navigation has proven a consistent problem for units at the NTC. What techniques/procedures proved helpful? What improvements in doctrine/institutional training are needed?

o What techniques were used to ensure understanding and execution of the commander's intent?

o What techniques/procedures can be used to reduce fratricide? At night?

o What are the effects of continuous operation on the performance of command and control.

o To what extent are techniques such as sleep management implemented to counter the stressof continuous operations?

o What are the chain of command implications of continual operations?

o How does the COHORT system influence the ability of the task force to perform command and control?

o What are the roles of Command Sergeant Majors and NCO's in the ability of the Tf to respond to continual operations?

o OPORDS, no matter how detailed or precise, are not effective if the intent of the commander (the collective effort of the force) is not understood. After four days of little or no

sleep company/team commanders and platoon leaders may not take in all of the intended mission. They should brief back their mission and how they integrate into the total task force mission.

- o FRAGO's are often unsatisfactory. Using instrumentation, determine the degree to which complete orders are being transmitted to subordinates.

- o Battlefield information and communications cause units to be at certain places on the battlefield to cause destruction of the enemy. Using instrumentation determine the battlefield information available and necessary for platoon and company successful combat operations. Investigation of this issue will expand to support the overall battlefield management system (BMS) issue.

B. Command Group

1. Composition
2. Location
3. Control

ISSUES:

- o Where should command groups be positioned? Who should be in command groups?
- o What can be done to enhance subordinate unit reporting enemy and friendly situation?
- o Synchronization of combat support has proven to be a weakness.
- o If a command style works at home station, do not change it for the NTC. Too often an adjustment in style at the NTC compounds an already difficult task. After several operations, commanders revert to their normal method of operating with better results.

C. Command Posts

1. Tactical Operations Center - Main
2. Tactical Operations Center - Alternate (Jump)

ISSUES:

- o TOCs contribute little to the battle.

- What should the TOC's battle functions be to assist the commander?
- What techniques/procedures enhance TOC effectiveness
- Is/should the XO be in the TOC? If so, when? What are his functions? If not, where?
- What equipment/organization changes are needed? Can TOCs be made more austere without degrading their effectiveness?
- Where should TOCs be located?

- o Does doctrine/procedures (TC) provide sufficient guidance for the TF engineer to properly execute his support mission?

- Physical location of the task force engineer within the task force TOC?
- Physical location of engineer resources/assets to maximize their combat multiplier potential?
- Immediate integration of the task force engineer into the initial planning sequence?
- Integration of obstacles employment into the maneuver plan?
- Integration of engineer obstacles into the total combined arms operation to include direct/indirect fires used to cover executed engineer targets?

D. Communications and Electronics

1. Responsibilities
2. FM Nets
3. Sound/Visual/Wire Communications
4. Communications Security

ISSUES:

o Is communications equipment adequately survivable and mobile to meet the requirements of the battalion?

o Are sufficient radios and secure devices authorized to operate on heavy brigade nets? (Light infantry specific)

o Is the communication system within the scout platoon adequate for the platoon to effect its internal command and control, and link it with the task force's intelligence, command/control, air defense, and fire support systems? How could the system be restructured to accomplish these tasks if it is not adequate? (FM 17-98)

o Communication security is unsatisfactory. Using instrumentation, determine the degree to which communication security violations occur within the task force.

o Transmission length from critical Task Force Command and Control elements can jeopardize security and lead to enemy electronic warfare and fire power action. Using instrumentation determine the degree to which Task Force elements limit communication transmissions.

E. Operations Security

1. Planning
2. Counter Surveillance
3. Counter Measures
4. Deception

ISSUES:

- o OPSEC by the task forces is an overall problem area.
- o What procedures can be implemented to preclude enemy infiltration at night?
- o Command posts must have adequate security and be able to displace rapidly. The best techniques for accomplishing this must be determined.
- o Task force security is unsatisfactory. Using instrumentation determine the degree by which enemy reconnaissance elements are able to penetrate the area of influence of the friendly unit.

VIII NBC

- A. Reaction
- B. Reporting
- C. Detection
- D. Decontamination

A. Reaction

ISSUES:

- o Reaction to NBC attack is slow. Using instrumentation, measure the response time by units after an NBC attack.
- o Are unit SOPs compiled by unit personnel?
- o Do Task Forces don the appropriate protection clothing and masks after an alert?
- o Is there continuous monitoring for fall-out after a nuclear detonation?
- o Are chemical agent casualties properly treated?
- o Are NBC contaminated areas properly marked by Task Forces?
- o Is the proper MOPP level maintained by all unit personnel?
- o What is the effect on gunnery when units are operating under NBC conditions?
- o Are unit vehicles and equipment properly protected during an NBC attack?
- o Are unmasking procedures uniform and consistently applied?
- o Is an NBC attack alarm system used?

NUCLEAR

- o Is radiological monitoring included in all reconnaissance and intelligence activities?
- o Do personnel take cover in culverts, deep covered or open foxholes, ditches as protection against the initial effects of nuclear weapons, to include blast, heat, and nuclear radiation?
- o Upon alert of friendly nuclear fire, are vehicles placed in defilade position and the front spacing the expected blast? Are tunnels locked? Are these procedures accomplished in 10 minutes or less?

CHEMICAL/BIOLOGICAL

- o What warning systems are employed by the units?
- o Are protective masks donned by all unit personnel upon alert of a toxic, chemical, and/or biological attack?
- o Is protective clothing worn (in addition to masks) as protection against liquid chemical agents?
- o Do units react in accordance with the MOPP level designated by the commander?
- o Are equipment and supplies covered?
- o Are vehicles parked in woods or under brushes?
- o Are patients reported to the aid station immediately, and evacuated to a hospital?
- o Are proper detection and identification procedures followed?

GENERAL:

- o Are Area Damage Control Teams formed and operating at the site of the attack following the attack?

B. Reporting

ISSUES:

- o What are the effects of attack Helicopter Platoons flying into NBC contaminated areas because of lack of information?

- o What is the timeliness of the TF elements NBC-1 follow-up reports sent to the Battalion TOC?

- o Are NBC-3 reports being disseminated?

- o Is the Brigade being notified of all NBC attacks?

- o Is intelligence data from higher headquarters on NBC situation properly acted upon?

- o What are the effects of reporting NBC information on admin/log nets?

- o Are hazard areas plotted quickly and accurately?

- o NBC reporting is sporadic. Measure, using instrumentation, the timeliness and correctness of NBC reports.

- o NBC reports during a battle interrupt command and control. Using instrumentation measure the degree by which NBC reports interfere with the Command and Control process.

C. Detection

ISSUES:

- o Do TF's employ the M8 Automatic Chemical Agent Alarm and the M8 or M9 Chemical detection papaer following suspected attacks?

- o How long from detection to unit assuming the proper MOPP4 level?

D. Decontamination

ISSUES:

- attack? o Are clothing and equipment decontaminated after an NBC
- o Are decontaminating apparatus filled?
- o Is there a priority of decontamination?
- attack? o Are clothing exchange procedures followed after an NBC
- o Are emergency decontamination procedures followed?
- through o How quickly do units move from emergency contamination
- completion of "complete decontamination"?
- o Are the M11/M13 decon apparatuses used?
- o Are decon control measures used?